

What is claimed is:

1. A modified electroconductive polymer material comprising a metal filled in a space between the chains of an electroconductive polymer, said metal being oxidized through a chemical reaction between three substances consisting of said metal, a cation radical/dication, and absorbed water, said metal having a work function less than that of the electroconductive polymer.
2. The modified electroconductive polymer material as defined in claim 1, wherein said metal is one selected from the group consisting of aluminum, titanium, indium, cadmium, manganese, iron, copper, silver, tin, antimony, lead, sodium and calcium.
3. A method for producing the modified electroconductive polymer material as defined in claim 1, comprising the steps of;
 - allowing an electroconductive polymer and a metal having a work function less than that of said electroconductive polymer to be brought into contact with one another; and
 - keeping the contact between said metal and said electroconductive polymer, under the presence of absorbed water, so as to create the state of coexistence between three substances consisting of said metal, a cation radical/dication and said absorbed water.
4. The method as defined in claim 3, wherein said step of allowing said electroconductive polymer said metal to be brought into contact with one another includes:
 - forming on a substrate a film made of an electroconductive polymer; and
 - vapor-depositing on a surface of said film a metal having a work function less than that of said electroconductive polymer.